

IN THE CLAIMS:

1. (Currently Amended) A method of determining the risk of ice deposition from air due to precipitation, wherein comprising the steps of measuring the air temperature, is measured and estimating a type of precipitation and an amount of precipitation are estimated, wherein a measurement is performed for determining the actual amount of ice contained in the precipitation, rotating a surface element having a surface with a predetermined area through the air for a predetermined period of time, measuring an actual amount of ice accumulated on the surface element, and the results from said measurement are combined for determining combining the measurements to determine the risk of ice deposition.

2. (Previously Presented) A method according to claim 1, wherein the type of precipitation is estimated on the basis of a measurement for determining the ratio of liquid to frozen particles contained in the precipitation.

3. (Canceled)

4. (Previously Presented) A method according to claim 1, wherein a measurement is performed for determining the total equivalent, liquid amount of precipitation.

5. (Previously Presented) A method according to claim 1, wherein the measurement for determining the actual amount of ice

contained in the precipitation is performed as a calculation on the basis of dew point measurement.

6.-7. (Cancel)

8. (Currently Amended) A method according to claim-~~6~~ 1, wherein at the temperature of the surface element is caused to correspond essentially to the temperature of the atmosphere.

9. (Currently Amended) A method according to claim-~~6~~ 1, wherein the temperature of the surface is caused to have another predetermined temperature during said period of time.

10. (Currently Amended) A method according to claim 9 following measurement of the accumulated amount of ice, a relative movement is briefly provided between the surface element and the atmosphere at a relative rate that considerably exceeds the rate prior to said measurement, following which a further measurement of deposited ice is performed.

11. (Currently Amended) A method according to claim 10, wherein comprising controlling the relative rate between the surface element and the atmosphere ~~is controlled by~~ controlling the rate of rotation of one or more rotatable surface elements.

12. (Currently Amended) A method according to claim 11, wherein ~~the~~ comprising measuring adhesive capacity of the ice is ~~measured by~~ measurement of the accumulated amount of ice following a number of rotations at mutually different rates.

13. (Currently Amended) A method according to claim 11,
~~wherein the comprising measuring air resistance between the atmosphere~~
~~air and the ice accumulated on the surface element is measured.~~

14. (Currently Amended) A method according to claim 13,
~~wherein comprising applying an anti-icing liquid is applied in a~~
predetermined concentration and a predetermined amount on the surface
element before the measurements are performed.

15. (Previously Presented) A method according to claim 14, and
wherein a surface is applied with a predetermined type and concentration
of anti-icing liquid, wherein the risk of ice deposition on the surface is
calculated on the basis of knowledge of the type and concentration of the
anti-icing liquid; knowledge of the result of the measurement for
determining the ratio of liquid to solid particles contained in the
precipitation; and knowledge of the result of the measurement for
determining the current amount of ice contained in the precipitation.

16. (Previously Presented) A method according to claim 15,
wherein the risk is calculated and shown as a holdover time.

17. (Previously Presented) A method according to claim 15,
wherein manual tables are used to estimate holdover time, wherein the
tables are grouped according to different types of precipitation, wherein
the knowledge of the current amount of ice contained in the precipitation
and the ratio of the precipitation of solid to liquid particles is used for
defining the type of precipitation.

18. (Previously Presented) A method according to claim 15, wherein the concentration and anti-icing liquid is determined as a function of holdover time and the measured risk of ice deposition.

19. (Previously Presented) A method according to claim 18, wherein an expert system is used for the calculations which is configured for being run on a computer and configured for being able to estimate the risk of ice deposition on the basis of measurements, and configured for receiving information about the actual amount of ice accumulated, and, on the basis of the difference between the calculated and actual amount of ice, adjusting parameters in a calculation model for calculating the deposited amount of ice.

20. (Previously Presented) A method according to claim 19, wherein the computer is caused to be in communicative connection with other computers that are located in geographical different places; and that the expert system is configured for calculating in advance future changes with regard to the risk of ice deposition in response to meteorological parameters entered therein.

21. (Currently Amended) An apparatus for determining a risk of ice deposition from air due to precipitation which comprises a combination of optical means for measuring ~~the~~ reflectivity of precipitation, mechanical means for ~~moving~~ rotating a measuring surface element in relation to the air and for measuring ~~the~~ an amount of ice accumulated on the surface

element during a given period of time, and electronic means for combining said measurements.

22. (Previously Presented) An apparatus according to claim 21 and for the calculation of holdover time for anti-icing liquid, comprising a data storage device for storing information about empirical values for holdover time as a function of type of precipitation and the concentration of the anti-icing liquid.

23. (Previously Presented) An apparatus according to claim 21, comprising a mathematical model for estimating the ice deposition due to precipitation; and that the electronic means are configured for comparing the estimated values to the actually measured values for the amount of ice and for adjusting parameters in the model for optimisation thereof.

24. (Canceled)